

### Remarks

The various parts of the Office Action (and other matters, if any) are discussed below under appropriate headings.

#### **Claim Rejections - 35 USC § 103**

The Office Action dated August 9, 2004 includes rejections of each of independent claims 1, 20 and 21 under 35 USC § 103 as being unpatentable over (1) Snyder in view of Ma et al. and further in view of Liu et al.; and (2) Lin et al. in view of Ma et al. and further in view of Liu et al.

Independent claims 1, 20 and 21 have each been amended. It is noted that support for the present amendments to independent claims 1, 20 and 21 can be found in FIG. 3C (and the corresponding explanatory text) of the application.

Claim 1, as amended, recites a semiconductor device, which includes, *inter alia*, a source and a drain consisting essentially of silicide, a channel interposed between the source and drain and a gate dielectric made from a material having a relative permittivity of greater than about 10. The claimed device includes a body formed from a semiconductor film disposed on an insulating layer, where the insulating layer is disposed on a semiconductor substrate. The semiconductor film portion of the body is disposed between the source and the drain.

Claim 1, as amended, further recites a top portion of the source and a top portion of the drain disposed at vertical heights that are at least as high as a portion of the gate dielectric; and a bottom portion of the source and a bottom portion of the drain are each in physical contact with the insulating layer.

In short, none of the cited references, taken alone or in combination, disclose or fairly suggest a semiconductor device, which includes, *inter alia*, a source and drain consisting essentially of silicide, a gate dielectric made from a material having a relative permittivity of greater than about 10, a top portion of the source and a top portion of the drain disposed at vertical heights that are at least as high as a portion of the gate dielectric, and a bottom portion of the source and a bottom portion of the drain are each in physical contact with the insulating layer.

Snyder fails to disclose or fairly suggest a bottom portion of the source and a bottom portion of the drain each in physical contact with an insulating layer. Rather,

Snyder discloses a source and a drain (904 or 905) with their respective bottom portions in physical contact with Indium/Arsenic doped regions (902/903). None of the cited references, including Ma et al. and Liu et al. cure the deficiencies of Snyder. For at least this reason, it is respectfully submitted that the rejection should be withdrawn.

Lin et al. fails to disclose or fairly suggest a top portion of the source and a top portion of the drain disposed at vertical heights that are at least as high as a portion of the gate dielectric. Rather, Lin et al. discloses a source and drain (for example, 85a, 85b) having top portions each disposed at a vertical height that is below the gate dielectric (for example, 82) (see, for example, FIG. 8a-8g). None of the cited references, including Ma et al. and Liu et al. cure the deficiencies of Lin et al. For at least this reason, it is respectfully submitted that the rejection should be withdrawn.

For at least these reasons, it is respectfully submitted that claim 1 and claims 2-9 dependent therefrom distinguish patentably over the references of record. Accordingly, the rejection should be withdrawn.

For at least the reasons articulated above with respect to claim 1, it is respectfully submitted that claims 20 and 21 distinguish patentably over the references of record. Accordingly, the rejections should be withdrawn.

### **Conclusion**

In view of the foregoing, request is made for timely issuance of a notice of allowance.

Respectfully submitted,

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